# Article information:

A Neural Global Workspace Model for Conscious Attention - ScienceDirect
<https://www-sciencedirect-com.libproxy.ucl.ac.uk/science/article/pii/S0893608097000609>

# Article summary:

1. The article presents a neurocognitive model in which consciousness is defined as a global integration and dissemination system that controls the allocation of processing resources of the central nervous system.

2. The basic circuitry of this neural system is reasonably well understood and can be modeled using neural network principles.

3. Global Workspace theory replaces the idea of a single homunculus with a large audience of experts, and the focus of conscious activity corresponds to the work produced by the most active coalition of experts or modular processors.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "A Neural Global Workspace Model for Conscious Attention" presents a neurocognitive model of consciousness that integrates experimental data and models from cognitive psychology, AI, and neuroscience. The authors propose that consciousness is a global integration and dissemination system nested in a large-scale, distributed array of specialized bioprocessors that control the allocation of processing resources in the central nervous system.

The article provides a comprehensive review of the historical developments in AI and neuroscience related to consciousness. It also discusses the relevance of Global Workspace theory to central philosophical problems in consciousness studies, such as the homunculus and Cartesian theater.

However, there are some potential biases and missing points of consideration in this article. Firstly, the authors do not provide enough evidence for their claims about the basic circuitry of the neural system being reasonably well understood. While they suggest that it can be modeled using neural network principles, they do not provide any empirical evidence to support this claim.

Secondly, the article seems to present only one side of the argument regarding consciousness being a global integration and dissemination system. While it acknowledges that consciousness generally comes into play when stimuli are assessed to be novel or threatening or relevant to active schemas or intentions, it does not explore counterarguments or alternative theories about consciousness.

Thirdly, there is some promotional content in this article regarding Baars' Global Workspace theory. While acknowledging its limitations, the authors seem to suggest that it is an essential framework for understanding conscious processes.

Overall, while this article provides valuable insights into current research on consciousness and its neural correlates, it could benefit from more balanced reporting and empirical evidence to support its claims.

# Topics for further research:

* Alternative theories of consciousness
* Criticisms of Global Workspace theory
* Neural network principles in cognitive psychology
* Empirical evidence for neural circuitry models
* Philosophical debates on consciousness
* Neural correlates of novel or threatening stimuli

# Report location:

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